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GOLF TRAINING DEVICE

5 The present invention relates to a golf training arrangement and, more specifically, to an arrangement comprising a golf ball which is used during the tee strike training and which, after the strike, is automatically returned with the aid of a substantially rigid line secured to the
10 ball and, at its opposite, free end adapted to be anchored in the ground at a predetermined distance in front of the ball, and a ring slidable along said line and also on an elastic line, extending substantially across said rigid line, for cooperation with said elastic line the free ends
15 of which are adapted to be anchored in the ground, whereby said ball is, after the strike, by said ring and said rigid line, to which the ball is secured, resiliently halted and then returned.

20 In the market-place there do today exist a number of prior art arrangements comprising rubber loops or rubber tapes, which are used e.g. for tennis training and also to train golf ball tee strikes. Those arrangements do not provide control over the return of the ball since the force of the
25 strike will determine the speed of the returning fall. For that reason there do often occur accidents caused by balls hitting either the person training or spectators close to the tee. The prior art does also include light plastic balls, some of which are perforated, adapted for training
30 golf swings and ball hits. These do, however, not create a realistic sense and ball hit and it is almost impossible to decide whether the ball hit was good or not.

The object of the present invention is to provide an
35 arrangement of the type mentioned above which comprises a golf ball and which offers the possibility in a safe and realistic way to train golf swings and ball hits. In

contrast to the prior art arrangement this one does return the ball in a way under control, meaning that during the end of the return movement the ball is brought back to the player at ground level and to the tee. At the same time 5 identified sections along the front portion of the rigid line indicate the distance from the ball to the ring interconnecting the lines and to the crossing elastic line, thereby providing an indication about which type of club to be used. When the training is carried out with a 10 club of the driver type, the ground connection of the rigid line is moved for example closer to the tee so that the distance between the ball and the crossing line is increased. If the training is carried out with an iron club, e.g. number six, the ground connection is instead 15 moved to a greater distance from the tee whereby the distance between the ball and the crossing line is reduced. The factor decisive for the basic function of the training arrangement is namely that the ball should be returned to the tee, at the same time indicating that the 20 player has made a correct strike. The features of the invention are set out in the subsequent claims.

Thanks to the invention there has been provided an arrangement which in an excellent manner satisfies its 25 purpose and which, in addition thereto, is simple to use and cheap to manufacture. The combination of use of an actual golf ball and the fact that the arrangement according to the invention offers a control return movement creates a very realistic experience of the ball hit which 30 completely determines the quality of the training. Thanks to the fact that the ball is secured to a substantially rigid line, extending from the golf ball to a ground connection, and which via a ring, preferably a metal ring, is slidably held in position on the crossing elastic line, 35 the above-mentioned controlled strike and return of the ball is achieved. When a strike is made the crossing elastic line, or rubber line, catches the ball travelling

in the strike direction, which is then converted to a catching direction defining a pulling parabola different from the mentioned direction of the strike. This parabola includes a downwardly towards the ground oriented return movement of the ball, the elastic line keeping the rigid line, at which the ball is secured, depressed and pulls the ball back to ground level along the ground and up to the starting position at the tee. Stated in other words, the interconnection between the longitudinal rigid line and the resilient line forces the ball after the strike earlier to change its direction to a downwardly oriented path thereby storing in the resilient line energy for the return of the ball. The rigid line, at which the ball is secured, exhibits marked sections in front of the passage through the metal ring on the resilient line so that a player who wishes to train with a driver club can in a convenient manner move the golf ball and the rigid line connected therewith away from the resilient line. When the training is with an iron club, the distance between the golf ball and the metal ring can be decreased, either by movement of the crossing line relatively the ball or by displacement of the ground connection of the rigid line. Stated in other words and as has been mentioned above, one can in a simple way change the distance between the ball and the metal ring in response to the type of golf club used since clubs with different angles generate ball trajectories of different height. This does further increase the possibility to determine whether the strike was good or not. In order to facilitate change of ball it could be releasably attached to the rigid line via a mounting ring. Further, the use of a ring for the purpose of interconnecting the rigid line with the resilient line provides the advantage that it is completely impossible for a ball in movement to roll in below the crossing line in which case it would not be caught thereby. Finally, it must be stressed that the golf training arrangement according to the invention does only require a small area

which is distinctly defined because the line to which the ball is secured is substantially rigid.

The invention will now be described more in detail, reference being made to the drawing which diagrammatically shows an arrangement comprising a golf ball to be used in connection with tee strikes for training purposes and at which the ball is, following the strike, automatically returned to its tee position.

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As shown in the drawing a ball 1 is secured to the one end 2 of a rigid line 3, which in turn has its free end 4 anchored in the ground. The connection between the line 3 and the ball 1 is made in such a way that the ball must 15 not be given a through hole. Instead, expanding means can be used, e.g. in the shape of a bolt or a corrugated fastener member, in the center of the ball core. The free end of the expander bolt or the fastener member, respectively, has a member cooperating with the ring used for 20 releasable connection of the ball 1 to the rigid line 3. Alternatively, the line could be secured in the ball core by vulcanization, so as to be integrated therewith. Further, a mounting ball in the ball 1 has a greater diameter in the shell of the ball 1 than in the ball core 25 whereby is achieved that lateral forces generated at the strike are not transferred to the shell where they could otherwise cause cracking.

The portion 5 of the rigid line 3 adjacent the ball 1 30 carries a ring 6 slidable thereon and manufactured in a suitable material, for example plastic or metal. It can also slide on and cooperate with a resilient line 7 extending substantially across the rigid line 3. This resilient line 7 can be constituted by a rubber line and it 35 is, at its free ends 8, 9, adapted to be secured to ground. Since the metal ring 6 encloses both the rigid line 3 and the resilient line 7 a returning golf ball 1

cannot, in an uncontrolled way, return below the resilient line 7 and then hit the player or a spectator.

According to the preferred embodiment the length of the rigid line 3 is about seven meters and that of the crossing resilient line 7 about five meters. The metal ring 6, which is traversed by both those lines, is at a distance from the golf ball 1 which depends on the type of club selected for the training. In the example illustrated one has, with the aid of the markings on line 3, chosen a distance of about two meters. The distance from the ball to the crossing line 7 is marked on the rigid line 3 with sections A-C which could have the colours blue A, white B and yellow C. With reference thereto the location of the golf ball relatively the metal ring 6 and the crossing line 7 can easily be determined in response to the type of club used at the training. The training arrangement according to the invention does automatically signal the quality of the strike because, upon a good strike the ball will under control be returned to its tee position whereas, when the strike is bad, the ball will come to rest at a longer or shorter distance from its tee position.